Innovative Water Management for Commercial Landscaping

Landscape Professional Training
February 6, 2013
“…take a solution and divide it neatly into two problems.”

Wendell Berry
Conventional Approach
Low Impact Development Approach

How can we introduce productive landscapes?

How can we increase on-site infiltration?

How can we increase biodiversity?

How can we minimize impervious surfaces?

Source - Low Impact Development: a design manual for urban areas (University of Arkansas)
Low Impact Development Approach

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Innovative Water Management for Commercial Landscaping

- Adopted by Council on December 16, 2010

- Amended Chapter 25-2, Subchapter C, Article 9 of Land Development Code (Landscaping)

- Goals of Ordinance:
  - Use rainwater wisely
  - Conserve potable water
  - Help improve water quality
Ordinance Summary

• Commercial stormwater runoff must be directed to **50 percent** of required landscaped areas

• Can use non-required landscaping as long as area is equivalent to 50 percent of required area

• Landscaped areas can be—but are not required to be—designed to achieve water quality credit

• Undisturbed natural areas and undisturbed existing trees can also be counted toward the requirement
For the purposes of this ordinance, **Required Landscaped Area** equals 20 percent of the street yard plus any islands, medians, & peninsulas required outside of the street yard.
Design: Conveyance
Design: Other Requirements

- Minimum drainage area shall be a ratio of 1 square foot of drainage to 2 square feet of landscaped area (1:2).
- Site plan must show as part of the landscaping plan the drainage area(s) used to irrigate landscaping with stormwater.
- Stormwater from “hot spot” land uses (e.g., gas stations) and parking lots over the Recharge Zone may not be used unless landscape doubles as a water quality control.
Design: Other Considerations

• May require an impermeable barrier if adjacent to buildings, roadways, and parking lots to prevent damage from infiltration (at discretion of design engineer)
• Must still be protected by curbs or equivalent barriers if adjacent to vehicular use areas
• Should be designed to avoid the extended ponding of stagnant water
• Should account for pedestrian safety (e.g., gentle side slopes, protective barriers)
Undisturbed Vegetation Credit

• Undisturbed natural areas or undisturbed existing trees can count toward the 50 percent requirement

• Stormwater does not have to be directed to these areas (although still encouraged)

• No potable water irrigation is allowed to receive credit
Supplemental Irrigation

• Irrigation systems required for all newly planted trees
• Irrigation systems are required for all other newly planted landscaping, unless certain conditions are met:
  – receiving stormwater runoff
  – drought tolerant plant palette
  – low foot-traffic areas
• Temporary irrigation required for two growing seasons if no permanent irrigation is provided
Example: LCRA Redbud Center
Example: St. Edwards University
Example: Burnet Road
Contact Information

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